

### **REMARKS**

Support for Claims 19 and 20 is found in the specification in page 6, lines 27 et seq. The invention embodied in Claims 10-14 and 19 refers to a process for decomposing organic compounds present in waste water. Specifically, the process requires first obtaining waste water having pH value of 2 to 7.2 and containing TOC, dissolved carbonic acid or carbonates, and common salt. In a subsequent step the waste water is treated with ozone for a specific time and under specified conditions of pressure and temperature, the result being water having lowered content of TOC.

Key to the claimed process is the pH value of the waste water. The presence of dissolved carbonic acid or carbonates in the waste water hinders the removal of organic compounds and only at the recited pH range are the carbonic acid/ carbonate decomposed. It is therefore critical that before ozonation, the water to be treated is in the range of 2 to 7.2. (see specification on p. 3, l. 30 ff.).

In the prosecution above the claims were rejected as being unpatentable over Murphy in view of Shiota.

Murphy disclosed a method for producing ozone and the uses of ozone. Ozonation is said to remove phenols (col.1, line 32) although the medium from where the phenol is removed is not disclosed. Also disclosed (col. 31, lines 1-8), is the use of ozone in treatment of waste water yet nothing is disclosed relative to the presently claimed process parameters, pH value or the contained carbonates, the removal of which is critical in the context of the present invention.

Shiota disclosed a method of treating waste water and in col. 3, lines 14-50 refers to the contaminants in wastewater. Neither carbonates nor carbonic acids are mentioned as a contaminant (the referenced carboxylic acid does not describe carbonic acid) Carbonate ions are mentioned in Shiota's example 3 yet the pH value of the exemplified waste water is 7.8. Applicants respectfully assert that Shiota disclosed nothing relative to the contents of common salt (the sodium chloride

mentioned in Shiota's col.12, line 14 refers to the type of a reverse osmosis membrane and not to the content of waste water).

Applicants respectfully submit that the cited art falls short of the prima facie case.

Claims 15-18 and 20 are directed to a process for producing chlorine.

In the prosecution above Claims 15-18 were rejected over Bennett in view of Murphy.

Bennett disclosed removing iron and manganese impurities from sea water, the process entailing pre-treating of the saline solutions with sodium hypochlorite solutions. Murphy has been discussed above. Applicants note first that Bennett's "sea water" describes neither the "waste water" referred to by Murphy nor the waste water of the present invention. Bennett is completely silent relative to treatment of waste water having a pH of 2 to 7.2 with ozone in order to remove carbonates or carbonic acid and TOC and cannot reasonably be taken as disclosing any of the recited features of the present invention. Since Murphy disclosed no waste water containing carbonates or carbonic acid having the presently recited pH value, nor the use of the purified waste water for producing chlorine via electrolysis, it is unclear why or how Murphy can reasonably be seen to augment Bennett in a presently meaningful manner.

An early examination on the merits is solicited.

Respectfully submitted,

By



Aron Preis  
Attorney for Applicants  
Reg. No. 29,426

Bayer MaterialScience LLC  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-3814  
FACSIMILE PHONE NUMBER:  
(412) 777-3902

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